

its lengthy "certification" and tariff review process.¹¹ That process took five months the last time Bell Atlantic acquired a cellular property in Arizona. Bell Atlantic has already been waiting months for ACC approval on AZ-2. But it cannot enter the market to compete, because of the very ACC regulatory scheme that the ACC wants to preserve. Thus, contrary to the ACC's assertions that regulation is needed to enhance competition, Petition, at 11, the ACC's regulatory regime has in fact stymied competition.

The ACC has failed to produce evidence which demonstrates that anti-competitive market conditions occur even if there were only one wholesale provider in an RSA providing full service. Its evidence even indicates that the ACC's own regulatory structure has inhibited competition rather than fostering it. To the extent that the ACC is convinced that rate regulation is necessary in certain parts of the state, it can petition the FCC for such limited authority. But the current regulatory regime is unquestionably too broad. The Commission's statutory mandate permits it to authorize regulation only to the extent it "deems necessary to ensure that such rates are just and reasonable and not unjustly or unreasonably discriminatory." Section 332(c)(3)(B). The ACC's current statewide scheme of regulation does not meet this standard.

¹¹ Despite Section 332's effective date of August 10, 1994 for preemption of all CMRS entry regulation, Arizona has not eliminated its certification process. That drawn-out process requires submission of financial and other information by the carrier seeking to enter the market, preparation of an ACC staff report, a hearing before an ACC hearing examiner, preparation of a report by the examiner, and an open meeting before the Commission. The ACC has delayed Bell Atlantic's entry into AZ-2 contrary to federal law.

D. The ACC's Claims of Anticompetitive Behavior Are Incorrect.

The ACC refers to "anticompetitive behavior" by certain cellular carriers. Petition at 14-19. However, the ACC's claims do not show any such behavior and in any event do not show, as the Petition must, that the CMRS marketplace cannot protect consumers from unjust or unreasonable discrimination.

First, the ACC alleges that "it is possible for cellular carriers to impose external costs on noncellular subscribers through abuse of monopoly power." Petition at 14. The sole example offered is a proposal by certain cellular carriers to adopt a "calling party pays" service. While the ACC's point is unclear, this issue has nothing to do with competition within the cellular industry or among CMRS carriers. Instead, it concerns procedures for notification to a wireline telephone customer. Because the ACC may (and in fact does) regulate "calling party pays" service pursuant to its jurisdiction over conventional telephone service, this situation is not relevant to meeting the standard under Section 332.

Second, the ACC alleges that Bell Atlantic sought to reserve rate preferences for roaming service for its structural affiliates. Petition at 16. This is incorrect. When Bell Atlantic acquired the non-wireline RSA-5 system from Chronicle Publishing Company, it adopted Chronicle's tariff in large part. That tariff contained a definition of the term "affiliate" that encompassed all carriers with which Chronicle had contracts. The roaming provision in Chronicle's tariff permitted reciprocal roaming agreements with all "affiliates." Bell Atlantic changed the term "affiliate" in the original definition section of the Chronicle tariff

to mean common ownership without intending this to apply to roaming arrangements. In its report to the ACC, the ACC Staff recognized that Bell Atlantic was willing to enter reciprocal roaming agreements with carriers other than its structural affiliates, and, based on this fact, recommended that the ACC adopt the tariff.¹² Bell Atlantic did not intend to refuse to enter roaming agreements on this basis -- indeed to do so would have been counter to its own interests in expanding roaming traffic and revenues. Bell Atlantic eventually decided for clarity to change the tariff to emphasize its intent to offer reciprocal roaming arrangements to all carriers. Regulation never compelled the change, nor did Bell Atlantic ever resist it.

Third, the ACC alleges that Chronicle, Bell Atlantic's predecessor in RSA-5, proposed minimum resale block sizes of 100 numbers and 200 hours even though it anticipated serving only 35 retail customers in its first year of operation. Id. at 18. The ACC suggests without support that Chronicle proposed such high numbers in order to foreclose competitive resale opportunities. Like ACC's assertions about the reciprocal roaming tariff provision in RSA-5, the issue in this case also related to an oversight, this time by Chronicle. In fact, Chronicle never opposed the smaller block sizes, as they were merely a vestige from earlier MSA tariffs copied by Chronicle when it initially applied for ACC approval to offer service.

¹² See Staff Report, Utilities Division, Arizona Corporation Commission, Chronicle Publishing Company and Metro Mobile of Phoenix, Docket Nos. U-2443-93-134 and U-2561-93-134 at 3 (October 1993).

These "examples" offered by the ACC to justify regulation are, moreover, totally irrelevant to considering the Petition. They have nothing at all to do with subscriber prices or a showing that the ACC's scheme is essential to protect subscribers.

V. CONCLUSION

The ACC's Petition is deficient on numerous, independent procedural grounds. It fails to offer any evidence of competitive conditions in Arizona, that they are insufficient to protect consumers, or that the ACC's regulations are necessary to achieve that protection. Each of these three elements must be proven. They are not. The ACC's regulatory scheme thwarts Congress's goal of eliminating unnecessary regulation so that competition can generate benefits to the public. The Petition can, and should be, promptly denied.

Respectfully submitted,

THE BELL ATLANTIC METRO MOBILE
COMPANIES

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Dated: September 19, 1994

APPENDIX A

Affidavit of Sharon B. Megdal, Ph.D.

SHARON B. MEGDAL, being duly sworn, deposes and says:

1. My name is Sharon B. Megdal. I am President of MegEcon Consulting Group, 3540 E. Hampton Street, Tucson, Arizona 85716. MegEcon Consulting Group specializes in the formulation and evaluation of public policy.

2. I was born and raised in Irvington, New Jersey. I am a graduate of Irvington High School. I received an A.B. degree from Douglass College of Rutgers University, where I was elected to Phi Beta Kappa. I received M.A. and Ph.D. degrees in economics from Princeton University, where I specialized in public finance, which is the study of government tax and expenditure policy, and econometrics. I have been on the faculty of the University of Arizona and Northern Arizona University.

3. In 1985 I was appointed by Governor Bruce Babbitt to fill a vacancy on the Arizona Corporation Commission, the body responsible for the regulation of public utilities and securities in the State of Arizona. I served on the Corporation Commission until January 1987. In 1987 I established MegEcon Consulting Group. While a Commissioner, I developed a keen interest in the development of regulatory policy for telecommunications companies. Upon leaving the Arizona Corporation Commission, I continued my activity in this area through my consulting activities and writings. My resume, which details many other professional activities, is attached.

4. I have been asked by Bell Atlantic Mobile (BAM) to evaluate the Arizona Corporation Commission's Petition to Extend State Authority Over Rate and Entry Regulation of All Commercial Mobile Radio Services (Petition). I perform this evaluation in the context of the Federal Communications Commission (FCC) Second Report and Order in GN Docket No. 93-252. I conclude that continued rate regulation of wholesale cellular services in Arizona is not warranted and would be inconsistent with federal policy goals.

The FCC Order

5. The FCC adopted its Second Report and Order (Order) on the Matter of Implementation of Sections 3(n) and 332 of the Communications Act, Regulatory Treatment of Mobile Services on February 3, 1994 (GN Docket No. 93-252). Sections 3(n) and 332 of the Telecommunications Act of 1994 (the Act) were amended by Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993 (Budget Act), which was signed into law on August 10, 1993.

6. A careful reading of the Order makes the policy intentions of Congress and the FCC regarding the state regulation of mobile radio services clear: (1) There is to be

regulatory symmetry in the regulation of similar mobile radio services. (2) The level of regulation of mobile radio services should be appropriate; unwarranted regulatory burdens are not to be imposed. (3) State entry regulation of commercial mobile radio providers is preempted. (4) State rate regulation of commercial mobile radio services is preempted, unless a state petitions the FCC to continue rate regulation and demonstrates the existence of certain market conditions. (5) The FCC has provided a list of information it would consider helpful in reviewing state petitions to continue rate regulation. (6) States are not prohibited by the Budget Act from regulating terms and conditions of service other than entry and rates.

The ACC Petition

7. By title, the Arizona Corporation Commission (ACC) Petition asks for extension of state authority over rate and entry regulation of all commercial mobile radio services (CMRS). It must be emphasized that the ACC does not currently regulate all CMRS. It does not even regulate all cellular CMRS. The ACC currently regulates the provision of cellular services at the wholesale level. It does not regulate provision of cellular services at the retail level.

8. The Petition discusses regulation of cellular in a general way. Other than a listing of the certificated cellular providers in the State and some historical anecdotal information, the Petition includes no other data to demonstrate market conditions in Arizona. The Petition explains (on pages 8-9) that the ACC regulates cellular wholesale providers "much as it regulates any other provider of public telephone service." This regulation includes: a evidentiary hearing prior to issuance of a Certificate of Convenience and Necessity; approval of rates, terms and conditions of service on a case-by-case basis; resolution of customer complaints; approval of debt and stock issuances and asset transfer; and review of all mergers, reorganizations and other transactions as fall under the ACC's affiliate interest rules.

9. Because the focus of the Petition is continued regulation of wholesale cellular services, this affidavit likewise focuses on the regulation and provision of wholesale cellular services in Arizona.

Information on the Provision of Wholesale Cellular Services in Arizona

10. Arizona is divided into eight regions for the provision of cellular services: two MSAs and 6 RSAs. The providers, area served, and date of the ACC's CC&N authorization are listed below in Table 1.

11. ACC information on ownership and management of the cellular systems shows that the land line carrier for much of Arizona, U S WEST (through NewVector) is a partner in all of the Block B companies, except for RSA-6, where as of this year it has no ownership in the portion of Block B served by Valley Telecommunications, a subsidiary of Valley Telephone Cooperative. Where it is a partner, U S WEST NewVector is also the system manager, except in RSA-1 and RSA-3. (Citizens Utilities Company is the general partner

and manager of the RSA-1 wireline system. Universal is the general partner and manager of the wireline system in RSA-3.) Bell Atlantic Mobile, which owns Metro Mobile, is the sole owner of the Block A provider in the Phoenix MSA and RSA-5 and owns over 90 percent of Tucson Cellular Telephone Company. Bell Atlantic Mobile is in the process of acquiring the Block A provider for RSA-2 and is the system manager for Jaybar Communications in RSA-6. McCaw Cellular manages the RSA-1 Block A provider. Therefore, it can be seen that large, experienced cellular providers are active and competing in Arizona.

12. The ACC regulates the service prices of wholesale cellular providers by approving tariffed rates and maximum discounts from the tariffed rates. At any point in time, an effective price sheet, showing the current effective price and the discount in effect governs the rates at which wholesale services can be sold. The ACC must approve by Order all changes to the tariffed service rates and maximum discounts. Prices that fall within the range bounded by the tariffed rate at the high end and the product of the tariffed discount and the tariffed rate at the low end can be established with 14 days notice.

13. The ACC does not regulate the provision of cellular services at the retail level. It is market demand interacting with supply, therefore, that determines the rates that the end user pays for cellular services. There is no necessary connection between wholesale rates and retail rates. Regulating wholesale cellular rates does not protect end users from high rates.

14. Arizona is the sixth largest of the states geographically, with an area of 114,000 square miles. Vast areas of Arizona are National Forest lands and Indian Reservations. Given its 1990 population of approximately 3,665,000 people, it has a population density of about 32 people per square mile. While its population density is low, as noted in the Petition, Arizona is in fact highly urbanized state. Census figures for 1990 show that over three quarters of Arizona's population live in the two MSAs, Maricopa County and Pima County. Much of RSA-5 is bordered by the two MSAs. If the population of RSA-5 is added to the MSA population, over 80 percent of Arizona's population lives in three of the eight service areas.

15. Population in the less populated areas of the state tends to be concentrated in a few incorporated areas. For example, in the state's most rapidly growing county, Mohave County (RSA-1), 63 percent of that county's population lives in the county's three largest cities. Table 2 shows a breakdown of Arizona's population by county and cellular service area.

Discussion

16. The information provided by the ACC does not support continuation of Arizona's rate regulation of wholesale cellular services in Arizona.

17. As in other states, wholesale cellular services in Arizona are provided under a duopoly market structure. Congress and the FCC recognize this. The FCC explicitly recognizes the particular nature of the cellular marketplace in the Order. The existence of a duopoly in the provision of wholesale cellular services was not sufficient for the Congress and the FCC to support continued rate regulation of cellular services and is therefore not sufficient to support continued state regulation of wholesale cellular service rates in Arizona.

18. The Petition does not establish, as required by statute, that market conditions in Arizona "fail to protect subscribers adequately from unjust or unreasonable rates or rates that are unjustly or unreasonably discriminatory" or such market conditions exist and cellular service is a replacement for land line telephone exchange service "for a substantial portion of the telephone land line exchange service" within Arizona.

19. The ACC did not present data and did not hold a public meeting on its petition, thereby providing cellular providers the opportunity to discuss the ACC petition and provide information.

20. It is clear from the statutory language cited above, Congress shows concern for situations where there are a substantial number of people who cannot be served by a land line carrier and are served by mobile radio service and there is not protection from unjust, unreasonable or discriminatory rates. The ACC asserts that such individuals exist but present no information to evaluate on their number and location.

21. Even if such individuals exist, it does not automatically follow that rate regulation of wholesale cellular services is necessary to protect them from unreasonable, unjust or discriminatory rates. A cellular provider is going to set its wholesale prices according to the general market conditions for the RSA or MSA, and the Order explains that FCC provisions that prohibit cellular providers from engaging in discrimination among resellers remain in effect (paragraph 175). Therefore, discontinuing state rate regulation in Arizona would not subject even those individuals who may fall in this unusual category to unjust or unreasonable rates. Furthermore, it is the retail provider who provides service to the end user. Because there are choices for most consumers, retail prices will be set according to market conditions. As already noted, the ACC does not regulate cellular service prices at the retail level. Hence, continuing wholesale rate regulation would not protect end users who may fall in this unusual category and who could somehow be identified by the retail service provider.

22. If the ACC can establish cases where cellular service, provided by a single provider, is the only choice for a substantial number of people in an RSA, and other factors do not ensure that rates will be just and nondiscriminatory, I would recommend that the ACC specify for the FCC how it will apply regulation in that service area and how it will determine when regulation is no longer necessary. The exceptional case, if it exists, should not subject the wholesale cellular industry in the entire state to regulation.

23. The ACC Petition speaks on page 15 of the potential for monopoly abuse in the context of the advantage of the wireline provider over the non-wireline provider. In fact, the information in Table one shows that the non-wireline service provider was granted a


Certificate of Convenience and Necessity in advance of the wireline provider in four of the six RSAs. (In a fifth RSA, less than a month separated the issuance of the CC&Ns.) In Phoenix and Tucson MSAs, the wireline CC&N was granted 13 and 9 months prior to the non-wireline CC&N, respectively. The provision of Block A cellular service in RSA-2 was delayed by the disqualification of the initial licensee. AZNEV won the second-lottery license to serve RSA-2. Acquisition of the AZNEV CC&N and FCC authorizations by Bell Atlantic Mobile has been approved by the FCC and is awaiting ACC approval. Bell Atlantic Mobile is an experienced provider of cellular services and can be expected to compete actively in the RSA-2 marketplace, which includes the city of Flagstaff, the second largest city in Arizona that is outside the MSAs. Flagstaff is home to Northern Arizona University and many businesses and is at a crossroads for tourist and trucking traffic.

24. Market forces discipline the pricing behavior of both wireline and non-wireline cellular providers. Rate regulation is not needed because of Block B provider affiliation with local exchange companies. Again, this affiliation is a phenomenon that pervades cellular provision in the United States. The wireline - non-wireline situation is not unique to Arizona and does not warrant continued rate regulation.


25. I have written several papers on the appropriate level of regulation in telecommunications markets. These papers were based on my background as an economist and my experience as a regulator. In my conceptual paper "The Benefits of State Regulation," which was presented at a 1990 conference and is soon to be published, I examine what I call the marbled structure of telecommunications regulation in the United States. In discussing uniformity of approach associated with federal regulatory policy, I state (on pages 7-8 of the January 1994 Revised version):

It would be expected that centralized regulation would effect a uniform approach to product introduction, pricing, profit oversight, and competition. This uniformity has advantages and disadvantages, which depend on the appropriateness of the federal policy and the variability in conditions across the nation...Certainly, a uniform national policy that is appropriate to market and industry conditions nationally would be superior to a fragmented approach that does not provide proper incentives for efficiency and innovation or does not facilitate competition sufficiently...

26. A uniform national policy has been established that is designed to foster further development of the marketplace for mobile radio services. The information contained in the ACC Petition does not present justification for Arizona to depart from the national policy. Major cellular providers are established and competing in the State. Granting the ACC's petition to continue rate regulation of wholesale cellular services in Arizona would not be consistent with federal goals and policy regarding regulation of mobile radio services.


Sharon B. Megdal

Subscribed and sworn to before me
this 14 day of September, 1994


Notary Public

My Commission Expires ~~My~~ Commission Expires Aug. 31, 1998

TABLE 1 - CELLULAR PROVIDERS

Region	Company Currently Serving	Date of CC&N
Phoenix MSA-Block A Phoenix MSA-Block B	Maricopa County Metro Mobile CTS of Phoenix U S West NewVector Group	11/8/84 9/14/83
Tucson MSA-Block A Tucson MSA-Block B	Pima County Tucson Cellular Telephone Co. Tucell Limited Partnership	11/13/85 2/14/85
RSA-1-Block A RSA-1-Block B	Mohave County Satellite Cellular Systems Mohave Cellular Ltd.	12/20/90 12/29/92
RSA-2-Block A RSA-2-Block B	Coconino & Yavapai Cos. AZNEV TELECOM, INC. Coconino, Arizona RSA Lmtd.	5/2/94 9/21/90
RSA-3-Block A RSA-3-Block B	Apache & Navajo Cos. Smith Bagley, Inc. Arizona RSA 3 Ltd. Partnership	8/22/90 1/16/91
RSA-4-Block A RSA-4-Block B	Yuma & La Paz Cos. Century Yuma Cellular Corp. Yuma, Arizona RSA Ltd. Partnership	7/19/90 9/21/90
RSA-5-Block A RSA-5-Block A RSA-5-Block B	Gila & Pinal Cos. Chronicle Cellular (CC&N & assets transferred to Metro Mobile) Metro Mobile CTS of Phoenix Gila River Cellular General Part.	7/19/90 11/3/93 2/25/91
RSA-6-Block A RSA-6-Block B RSA-6-Block B NOTE: Original Block B Partnership Dissolved-1994	Graham, Cochise, Greenlee, and Santa Cruz Counties Jaybar Communications Valley Telecom.-split of RSA-6 US WEST NewVector-split of RSA-6 Southeast AZ Cellular Wireless Ltd.	1/18/91 6/22/94 6/22/94 12/20/90

TABLE 2 - 1990 ARIZONA POPULATION		
County	Cellular Area	Population
Apache	RSA-3	61,591
Cochise	RSA-6	97,624
Coconino	RSA-2	96,591
Gila	RSA-5	40,216
Graham	RSA-6	26,554
Greenlee	RSA-6	8,008
La Paz	RSA-4	13,844
Maricopa	Phoenix MSA	2,122,101
Mohave	RSA-1	93,497
Navajo	RSA-3	77,658
Pima	Tucson MSA	666,957
Pinal	RSA-5	116,379
Santa Cruz	RSA-6	29,676
Yavapai	RSA-2	107,714
Yuma	RSA-4	106,895
State		3,665,305

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Education:

A.B., Economics, Douglass College (Rutgers University), 1974.
M.A., Economics, Princeton University, 1977.
Ph.D., Economics, Princeton University, 1981.

Experience:

President, MegEcon Consulting Group, 2/87-present.

MegEcon Consulting Group is an economic and public policy consulting firm specializing in provision of expert witness testimony, formulation and evaluation of public policy and economic education.

Executive Director, Santa Cruz Valley Water District, 11/91 - 6/94.

The District, a political subdivision of the State, was formed to facilitate water resource management efforts in Southern Arizona. It was established in June, 1991 for a 30-month planning period, at the end of which it was determined that the area water interests could not agree on a governance structure for the District. Responsibilities included management of the agency's activities, including administration, policy development and planning, project construction and operations, and representation of the agency before local, state and federal bodies.

Member, Arizona State Board of Transportation, 1/91-present.

Director, Tucson Electric Power Company, 10/89-11/91.

Chairman, Arizona Joint Select Committee on State Revenues and Expenditures, 1989
The Committee was charged with examining state taxation and spending and formulating recommendations for solving Arizona's deficit problem.

Visiting Associate Professor, College of Business Administration, Northern Arizona University, (half-time) 1987-88.

Responsibilities included teaching economics to MBA students, research and special projects.

Commissioner, Arizona Corporation Commission, 10/85-1/87.

Appointed by Governor Bruce Babbitt. The Arizona Corporation Commission has responsibility for the regulation of public utilities, business incorporation, securities, and railroad safety.

Assistant Professor of Economics, University of Arizona, 1/79-6/87; on leave 10/85-1/87.

Responsibilities included teaching advanced Econometric Theory, Probability and Statistics, Public Sector Economics, and various undergraduate economics courses and researching topics in Public Sector Economics and Applied Econometrics.

Assistant in Instruction, Princeton University, 1976-77.

Assistant in Research, Princeton University, 1975.

Selected Honors and Fellowships:

Phi Beta Kappa, 1973
Beta Gamma Sigma, the National Business Honorary, 1984
Tucson YWCA Woman on the Move Award, 1989
Honorary Recognition Award, Soroptomist International of Desert Tucson, 1990
Outstanding Young Women in America
Who's Who of American Women
Who's Who in the West
Who's Who of Emerging Leaders in America
International Who's Who of Professional and Business Women
Princeton University Fellowship, 1974-78
Sloan Foundation Fellowship, 1976-78
N.J. Urban Economics and State and Local Finance Fellowship, 1976-78
Richard D. Irwin Foundation Fellowship, 1977-78

Selected Professional and Volunteer Activities:

Participant, Economic Conference of President-Elect Clinton and Vice President-Elect Gore, Little Rock, December 1992.
Chairman, Board of Trustees, Tucson Medical Center, 1993 -; Member, Board of Trustees, 1990 -; Vice Chairman, 1992. Member, Board of Trustees, TMCare, 1993 - . TMCare owns and operates Tucson Medical Center, Partners of Arizona health maintenance organization and other companies involved in providing health care.
Member of the Board, Southern Arizona Water Resources Association, 1989-90, 1991-.
Member, Tucson Airport Authority, 1990 -.
Member, Fiscal Policy Advisory Committee, Children's Action Alliance, 1994.
Member, Transportation and Economic Development Committee, Transportation Research Board, National Research Council, 1994-.
Judge, Arizona 1993 Entrepreneur of the Year Awards, sponsored by Ernst & Young, Inc. Magazine and Merrill Lynch.
Member, Governor's Regional Airport Advisory Committee, 1990 - 1992.
United Way of Greater Tucson Board Member, 1989 - 1992; Executive Committee Member and Planning Division Chair, 1989-91.
Member, Resolution Trust Corporation Council of Arizona, 1990-91 .
Member, Honorary Advisory Board, Resources for Women, 1990 - 91.
Member, Az Board of Regents Commission on the Status of Women, 1989-91.
Member, Greater Tucson Economic Council RTC Study Group, 1990.
Member, 1988 Inaugural Year Class, Leadership America, a national leadership conference for women.
Participant, United States-Mexico Emerging Leaders Dialogue, American Center for International Leadership and IBAFIN, Mexico City, April 1988.
Member, National Association of Regulatory Utility Commissioners (NARUC), 1985-1987; Member, Electricity Committee, 1986-1987.

Member, Advisory Committee, Telecommunications Policy Research Conference at Airlie, Virginia, 1987, 1988.

Committee on the Status of Women in the Economics Profession, Board Member, 1984-1986.

Member, American Economic Association, 1974-.

Reviewer for numerous Economics journals, textbook publishers, and the National Science Foundation.

Member of the Board, Tucson Tomorrow, 1987-1989.

Member of the Board, Tucson Issues Forum, 1988.

Member, Arizona Board of Regents Student Financial Aid Task Force, 1987.

Featured speaker and panelist at various national and local conferences, meetings, radio and television programs.

Selected Recent Conference Speeches and Presentations:

Speaker, Joint Conference of the National Safety Council's 20th International Forum for Traffic Records and Highway Information Systems, July 1994.

Panelist, National Water Resources Association Annual Conference, December 1993.

Speaker, Arizona Water Resources Association, October 1992.

Speaker, Arizona Rural Water Association, December 1992.

Speaker, University of Florida Public Utility Research Center Conference on Regulatory and Managerial Strategies for Promoting Innovation, April, 1992.

Speaker, "The Role of Utility Regulators in State Economic Development Efforts," National Association of State Utility Consumer Advocates (NASUCA) Annual Meeting, San Antonio, Texas, November 1991.

Speaker, Conference on Prospects for Corporate Relocation to Arizona, University of Arizona Udall Center for Studies in Public Policy, December 1990.

"The Benefits of State Regulation," Conference on Regulatory Federalism in Telecommunications: Anachronism of Laboratory?, Columbia University Center for Telecommunications and Information Studies, October 1990.

Speaker, Future Visions: Women's Leadership Conference, Phoenix, May 1990.

Speaker, Arizona Association for Industrial Development Legislative Affairs Forum, Phoenix, January 1990.

Speaker, Fourth Annual State Telecommunications Issues Conference: Deregulation and Competition, September 1989.

Speaker, NARUC Introductory Training Program, October 1989.

Keynote Speaker, Pinal County Town Hall, April 1989.

Panelist, The Tucson Community Ethics Forum, January 1989.

"A Comparison of Alternative Methods for Regulating Local Exchange Companies," U S WEST Academic Seminar, August, 1988, and Sixth NARUC Biennial Regulatory Information Conference, September, 1988.

"Municipalization of Electricity Provision: The Captive Customer's Strategy for Bypass," Sixth NARUC Biennial Regulatory Information Conference, September, 1988.

Keynote Speaker, Women in Business Conference, Tucson, April, 1988.

"From Regulation to Competition--Beyond Rhetoric: The Status of Deregulation in the Telecommunications Industry," Western Conference of Public Service Commissioners, Durango, June 1987.

"Communications Technology: Development and Economic Fallout," 98th NARUC Convention, Phoenix, November 1986.

Publications:

"The Santa Cruz Valley Water District and CAP Use: Decisionmaking Under Uncertainty," Proceedings of the 1992 Fall Conference of the Arizona Water Resources Association, forthcoming.

"Sex Differences in the Academic Labor Market in the Affirmative Action Era," Economics of Education Review 12, No.1, 1993, 21-43.

"The Benefits of State Regulation," in Crossing Lines: American Regulatory Federalism and the Telecommunications Infrastructure, edited by Paul Teske, Lawrence Erlbaum Associates, Inc. forthcoming.

"On Regulation, Deregulation, and Economics," The Energy Journal 10, July 1989, 181-195.

"Municipalization of Electricity Provision: A Strategy for Bypass," Public Utilities Fortnightly 123, March 2, 1989, 22-26.

"A Comparison of Alternative Methods for Regulating Local Exchange Companies" (with Darol S. Lain), Proceedings of the Sixth NARUC Biennial Regulatory Information Conference, held September 1988, Vol. 3, 11-41; Proceedings of the 1988 U S WEST Academic Seminar (presentation transcript), held August 1988, 25-32.

"Municipalization of Electricity: The Captive Customer's Strategy for Bypass," Proceedings of the Sixth NARUC Biennial Regulatory Information Conference, Vol. 1, 627-634.

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"An Assessment of Telecommunications Regulation," New Mexico Business Forum 6, Spring 1988, 21-25.

"Comments on Robert Theobold's 'A Framework for Thinking About Transportation Issues,'" Proceedings from Arizona Futures: A Symposium, Arizona Department of Transportation, December 1987.

"The Political Economy of Telecommunications Deregulation: The Arizona Case," Public Utilities Fortnightly 119, June 25, 1987, 20-26; reprinted in US WEST Academic Relations Quarterly Report, December 1987.

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- "Comparable Worth: Some Issues for Consideration," Contemporary Policy Issues 4, April 1986, 40-51.
- "Estimating a Public School Expenditure Model under Binding Spending Limitations," Journal of Urban Economics 19, April 1986, 277-295.
- "An Economist and a Feminist Look at Comparable Worth" (with Sheila Tobias), Arizona Labor Market Newsletter 10, No. 2, February 1986, 16-22.
- "A Comment on 'Property Taxes and Firm Location: Evidence from Proposition 13'," Studies in State and Local Public Finance, Harvey S. Rosen, Editor, National Bureau of Economic Research, The University of Chicago Press, 1986, 108-112.
- "Women in the Arizona Economy: A Profile," Chapter 2 in Women and the Arizona Economy, Janice Monk and Alice Schlegel, Editors, document prepared for the First Arizona Women's Town Hall, Southwest Institute for Research on Women, University of Arizona, 1986.
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Monographs:

School Funding Formulas and Local Expenditures on Education: The Case of New Jersey, Ph.D. Dissertation, Princeton University, 1981.

Figgie Crime Report: An Economic Perspective, with Gerald J. Swanson and Victor Tabbush, 1985.

Selected Consulting Clients:

US WEST Communications, Inc.:

Arizona

Colorado

New Mexico

(Testimony filed, Docket 87-54-TC, September 1987; refiled March 1989);

(Testimony filed, Docket 92-326-TC, August 1992; application withdrawn, June 4, 1993)

Washington

(Testimony filed, Docket U-88-2052-P, May 1988)

Montana

(Comments filed, Docket 90.8.46, October 1990; Testimony filed, December 1990, November 1991; testimony withdrawn April 1992 due to withdrawal of alternative regulation application)

U S WEST, Inc. Strategic Marketing Unit

New Jersey Bell

(Affidavit filed, Docket TO92030358, March 1992)

Southwestern Bell Telephone

Missouri

(Testimony filed, Docket TC-89-14, March 1989)

Texas

(Testimony filed, Docket 8585, May 1989)

Kansas

(Testimony filed, Docket 166,856-U, September 1989)

Oklahoma

(Testimony filed, Docket PUD 000837, August 1991; Application withdrawn by company, September 1991)

Stentor Resources Centre, Inc. (Evidence Filed, Canadian Radio and Telecommunications Commission, Public Notice CRTC 92-78, April 1993)

Contel Service Corporation

Arizona Public Service

Arizona Tax Research Association

Southern New Hampshire Water Company, Inc.

Central Telephone Company of Nevada (Testimony filed, Docket 89-751, November 1989; Comments filed March 1990)

APPENDIX B

FCC RADIO CARRIER LICENSEES

Paging:

<u>Company</u>	<u>Counties</u>
Action Communications, Inc.	Cochise Pima Santa Cruz
Advanced MobileComm of Nevada, Inc.	Mohave
Airtouch Paging	Maricopa Pinal Pima Yavapai Coconino Mohave Chochise Santa Cruz
AllCity Paging	Yuma Pima Maricopa Yavapai Coconino
Amberjack Comms of Arizona, Inc.	Gila Maricopa Pinal Pima
American Paging, Inc.	Pima Santa Cruz Cochise Maricopa Yavapai Pinal Coconino Gila

<u>Company</u>	<u>Counties</u>
Answerphone (Associated Comms of America	Maricopa
AzCom Paging, Inc.	Pima
BestPage, Inc.	Pima Maricopa
Cal-Com Radio Telephone Service	Yuma
CGI Holdings, Inc.	Maricopa Pima Coconino
Com-Rents, Inc.	Maricopa
Comven, Inc.	Pima
Contact Communications, Inc.	Maricopa
Contact New Mexico LP	Apache
Embark Communications Services, Inc.	Maricopa
Gila Communications, Inc.	Graham Greenlee Cochise
Glen Canyon Communications, Inc.	Coconino

<u>Company</u>	<u>Counties</u>
International Paging Corporation	Maricopa Pima
Kwik-Page Communications, Inc.	Maricopa
MBS Communications, Inc.	Maricopa Pima
Meta RCC, Inc.	Maricopa Pima
MetroCall, Inc.	Maricopa Pima
MobileComm Nationwide Operations, Inc.	Maricopa Pima
MobileComm of the West, Inc.	Maricopa Pima
MobileMedia Communications, Inc.	Maricopa Pima
Mohave Tele-Communications	Mohave
PacTel Corporation	Maricopa Pima Pinal Coconino Yavapai Santa Cruz Cochise

<u>Company</u>	<u>Counties</u>
PageMart Operations, Inc.	Maricopa Pima Pinal
Pageprompt USA	Maricopa Pima
Pager One, Inc.	Pima
Paging Network of Arizona, Inc.	Maricopa Pima Yavapai Coconino
Paging Systems, Inc.	Maricopa
Phoenix/Tucson Paging Corp.	Maricopa Pima Pinal Coconino Yavapai Cochise Mohave Santa Cruz
Rapids Communications	Pima
Skytel Corporation	Maricopa Pima Coconino Yuma
Southland Holdings, Inc.	Pima

<u>Company</u>	<u>Counties</u>
Strategic Products Corp.	Maricopa Pima Mohave
TelePage, Inc.	Yavapai
Tempo Personal Comms of CA, Ltd.	Pima
US Central, Inc.	Maricopa Pima
VJS Communications Co.	Gila
WeCom, Inc.	Mohave
Westlink Licensee Corporation	Maricopa Pima Pinal Coconino Yuma Yavapai Cochise Santa Cruz
White Mountain Communications, Inc.	Navajo Apache
Yuma Radio Telephone Service	Yuma